Amendments to the Specification:

Page 1, after the Title, please insert the following paragraph:

This application is a National Stage application of PCT/JP2004/011679 filed August 6, 2004, which claims priority from Japanese patent application 2003-324167, filed September 17, 2003. The entire contents of each of the aforementioned applications are incorporated herein by reference.

Amend the paragraph on page 3, lines 1-10, as follows:

In order to achieve the above object, according to the present invention, a method for producing a superconductor includes the step of forming a superconducting layer on a base layer by performing a film deposition at least ~~two~~ three times, wherein the film thickness of a superconducting film in each film deposition is 0.3 μm or less and the superconducting film having the film thickness of 0.75 to 3 μm is formed on the base layer. ~~In a method of producing a superconductor according to the present invention, a superconducting layer having a layer thickness of 0.75 to 3 μm may be formed on the base layer by performing the film deposition at least three times.~~ Furthermore, in a method of producing a superconductor according to the present invention, the supply area velocity of the base layer in each film deposition may be at least 0.04 m^2/h.

Amend the paragraph on page 4, lines 2-6, as follows:

According to a method for producing a superconductor of the present invention, referring to Figs. 1(a) to 1(d), a superconducting layer 2 is formed on a base layer 1 by performing a film deposition at least two times to produce a superconductor 100, wherein the film thickness of a superconducting film in each film deposition is 0.3 μm or less and the superconducting film having the film thickness of 0.75 to 3 μm is formed on the base layer.

Amend the paragraph on page 5, lines 1-5, as follows:

Thus, the film deposition is sequentially repeated to increase the layer thickness of the superconducting layer. After the film deposition is performed n times, the layer thickness T of the superconducting layer is generally represented by $T=T_1+T_2+\cdots+T_n$ wherein n represents an integer of ~~two~~ three or more.

Amend the paragraph beginning on page 7, line 13, and ending on page 8, line 3, as follows:

Although the material of the buffer layer is not particularly limited, the materials preferably used as a material that provides the biaxial orientation are metal oxides containing at least one metal element having a crystal structure of pyrochlore-type, fluorite-type, rock-salt-type, or perovskite-type. Specifically, the examples of such materials include rare earth oxides such as CeO2, yttria stabilized zirconia (YSZ), $BaZrO_3$ (BZO), $SrTiO_3$ (STO), Al_2O_3, $YAlO_3$, MgO, and Ln-M-O compounds (wherein O represents oxygen, and Ln represents at least one element of the lanthanide series, and M represents at least one element selected from the group consisting of Sr, Zr, and Ga). These oxides diminish the difference between the textured metal substrate and the superconducting layer in terms of the ~~crystal~~ lattice constants and the crystal orientation. In addition, these oxides prevent the metal atoms from diffusing from the textured metal substrate to the superconducting layer. Two or more layers may be formed as the buffer layer.

Amend the heading on page 9, line 18, as follows:

(Examples ~~1 to 10~~ 2 to 10 and Reference Example 1)

Amend the paragraph beginning on page 10, line 12, and ending on page 11, line 12, as follows:

Thus, the following 10 superconductors were prepared: a superconductor (Reference Example 1) including a superconducting layer having a thickness of 0.5 μm prepared by

performing the film deposition two times; a superconductor (Example 2) including a superconducting layer having a thickness of 0.75 μm prepared by performing the film deposition three times; a superconductor (Example 3) including a superconducting layer having a thickness of 1.0 μm prepared by performing the film deposition four times; a superconductor (Example 4) including a superconducting layer having a thickness of 1.25 μm prepared by performing the film deposition five times; a superconductor (Example 5) including a superconducting layer having a thickness of 1.5 μm prepared by performing the film deposition six times; a superconductor (Example 6) including a superconducting layer having a thickness of 1.75 μm prepared by performing the film deposition seven times; a superconductor (Example 7) including a superconducting layer having a thickness of 2.0 μm prepared by performing the film deposition eight times; a superconductor (Example 8) including a superconducting layer having a thickness of 2.5 μm prepared by performing the film deposition ten times; a superconductor (Example 9) including a superconducting layer having a thickness of 3.0 μm prepared by performing the film deposition twelve times; and a superconductor (Example 10) including a superconducting layer having a thickness of 3.5 μm prepared by performing the film deposition fourteen times. The Ic of the superconductors in Examples ~~1 to 10~~ 2 to 10 and Reference Example 1 was measured by a four-terminal method to calculate the Jc. Table I summarizes the results of the Jc and the Ic.

Amend the paragraph beginning on page 11, line 14, and ending on page 12, line 8, as follows:

Superconductors including a superconducting layer having a large thickness were prepared by performing the film deposition once using the same base layer as that in Reference Example 1 and under the same conditions of film deposition as those in Reference Example 1, except for the supply area velocity of the base layer. The decrease in the supply area velocity of the base layer could increase the thickness of the superconducting layer. Thus, the following superconductors were prepared: a superconductor (Comparative Example 1) including a superconducting layer having a thickness of 0.25 μm; a superconductor (Comparative Example 2) including a superconducting layer having a thickness of 0.5 μm; a

superconductor (Comparative Example 3) including a superconducting layer having a thickness of 0.75 μm; a superconductor (Comparative Example 4) including a superconducting layer having a thickness of 1.0 μm; a superconductor (Comparative Example 5) including a superconducting layer having a thickness of 1.25 μm; a superconductor (Comparative Example 6) including a superconducting layer having a thickness of 1.5 μm; and a superconductor (Comparative Example 7) including a superconducting layer having a thickness of 1.75 μm. The Jc and the Ic were measured. Table I summarizes the results.

Page 13, in Table I, "Example 1" in the third column heading should be --Reference Example 1--.

Amend the paragraph beginning on page 14, line 20, and ending on page 15, line 15, as follows:

Superconductors having the same layer thickness will now be compared between the Examples and Comparative Examples. In the superconductor (<u>Reference</u> Example 1) including a superconducting layer having a thickness of 0.5 μm prepared by performing the film deposition two times, the Ic was 120 A/cm-width. In the superconductor (Comparative Example 2) including a superconducting layer having a thickness of 0.5 μm prepared by performing the film deposition once, the Ic was 100 A/cm-width. In other words, the Ic in <u>Reference</u> Example 1 was larger than that in Comparative Example 2 by 20 A/cm-width. On the other hand, in the superconductor (Example 2) including a superconducting layer having a thickness of 0.75 μm prepared by performing the film deposition three times, the Ic was 180 A/cm-width. In the superconductor (Comparative Example 3) including a superconducting layer having a thickness of 0.75 μm prepared by performing the film deposition once, the Ic was 105 A/cm-width. In other words, the Ic in Example 2 was larger than that in Comparative Example 3 by no less than 75 A/cm-width. Accordingly, the Ic can significantly be increased when the superconducting layer having a thickness of at least 0.75 μm is formed by performing the film deposition at least three times with the film thickness of 0.3 μm or less in each film deposition of superconducting film.

Amend the paragraph on page 16, lines 7-15, as follows:

Superconductors were prepared as in <u>Reference</u> Example 1 except that: the thickness of the superconducting film in each film deposition was changed by controlling the supply area velocity of the base layer and the film deposition was performed three times in the cases where the superconducting layer was formed by performing the film deposition two times or more, that is, the thickness of the superconducting film in each film deposition was controlled to be 0.1 μm (Example 11), 0.2 μm (Example 12), 0.25 μm (Example 13), 0.3 μm (Example 14), 0.35 μm (Comparative Example 8), 0.4 μm (Comparative Example 9), or 0.5 μm (Comparative Example 10).

Amend the paragraph on page 18, lines 15-21, as follows:

As described above, according to the present invention, a superconducting layer is formed by performing a film deposition at least ~~two~~ <u>three</u> times and the film thickness in each film deposition is 0.3 μm or less. Consequently, even when the thickness of the superconducting layer is increased, the decrease in the Jc can be suppressed and the Ic can be increased. The present invention can be widely used in order to increase the Ic of superconductors.